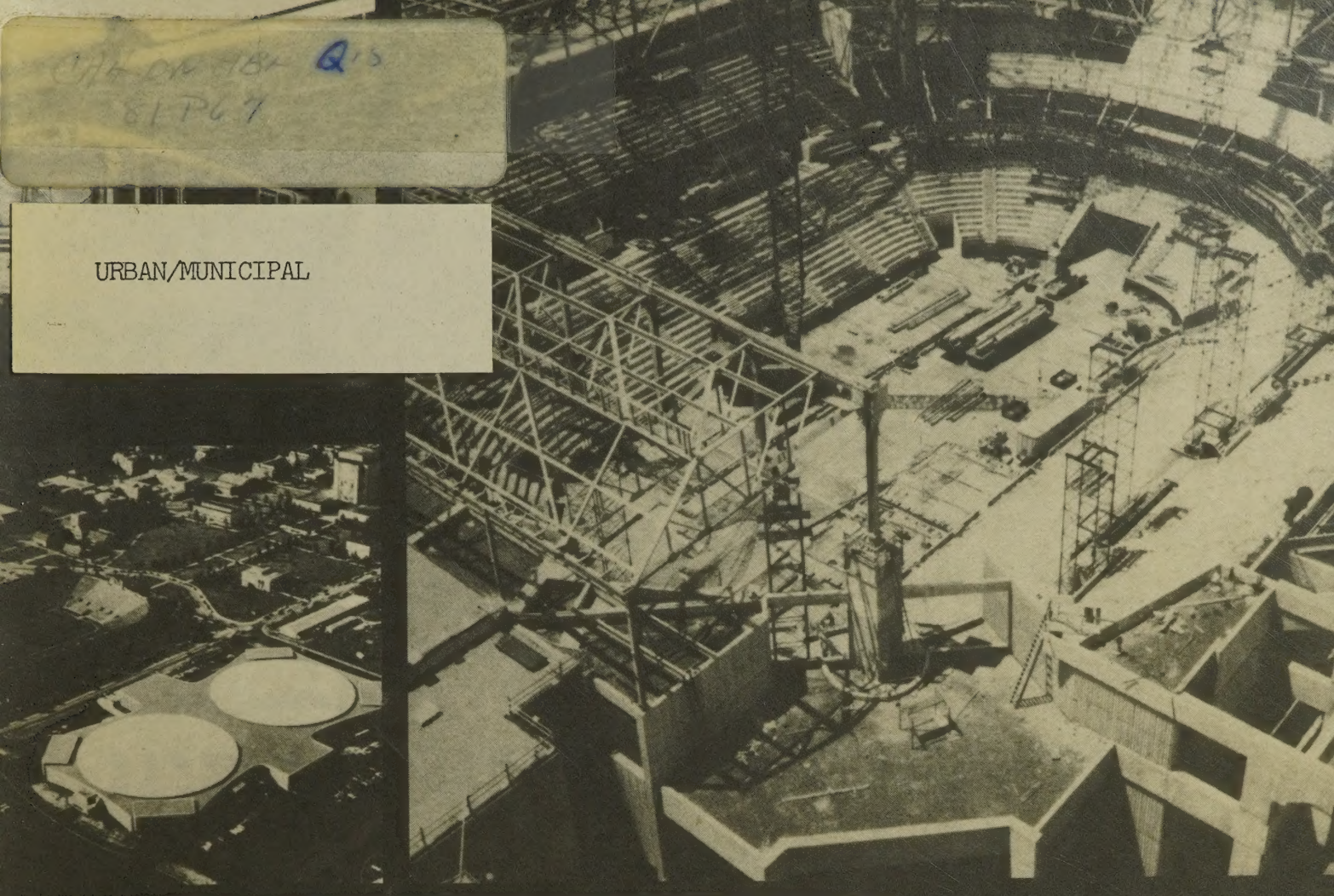


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Group

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Toronto, Canada  
M5J 2L6  
Cable Address: IBIGRP  
(416) 596-1930

August 14, 1981

Mr. E. A. Simpson, Esq.  
City Clerk  
City Hall,  
Hamilton, Ontario  
L8N 3T4

SUBJECT: Proposal of Services  
as Specialist Consultants  
Hamilton Arena/Trade Center Project

Dear Mr. Simpson:

We are pleased to submit herein our Proposal of Services in accordance with your request and Terms of Reference sent to us by Mr. Schatz dated August 4, 1981.

This is a proposal submitted jointly by our firm and Ellerbe Associates, Inc., Architects/Engineers/Planners based in Bloomington, Minnesota. We trust you will agree from reviewing the attached materials that Ellerbe Associates has perhaps the most extensive experience in North America in the design of major civic arenas. We also include as advisors the Hamilton based offices of Group Eight Engineering Ltd. and Hanscomb Roy Associates.

We understand that the intention of the City is to retain Specialist Consultants to prepare the space and facilities program, preliminary designs and cost estimates, and to subsequently retain General Consultants who will likely be based in the Hamilton area, to provide detailed designs, contract documents and construction contract administration. We assume that this initial design phase by Specialist Consultants will form part of the architectural and engineering work to be continued by the General Consultants.

In accordance with your Terms of Reference we therefore herein submit our proposal to carry out Parts A, B and C for a fixed lump sum fee. Additionally, once this initial project is complete and approved, we herein offer our services in accordance with the Terms of Reference Part D, to periodically review the work of the General Consultants on behalf of the City at our standard per diem rates.

. . . 2





According to the nature of your requirements for this initial project and the City's interest in obtaining the conceptual design advice from a firm with extensive experience in Arena/Trade Center projects, Ellerbe Associates would assume the primary role as programming, design and costing consultants for this project. In addition, based on their similar experience throughout the U. S., Ellerbe Associates are prepared to suggest two options for proceeding with the project once this initial concept design work is complete:

- Ellerbe Associates would be prepared to propose at the end of the initial project an approach by which their firm would assume the responsibility of completing the design and construction of the facility in association with local consulting firms, on the basis of a guaranteed capital cost and time schedule. Ellerbe Associates have a proven record in the U. S. of successful design/build projects of a similar nature.
- In addition, Ellerbe Associates would be prepared to propose an arrangement for its firm to assume the responsibility for financing, developing and leasing a suitable hotel consistent with the City's re-development plans on the Phase 3 site immediately adjacent to the Arena/Trade Center site. The firm's experience in carrying out such developments is likewise well established.

Should the City select our design team to carry out this initial phase of the work, it need not at this time decide between or agree to any of the options for our continuing services. We note these possibilities at this time to clearly demonstrate our willingness and ability to commit ourselves to the quality and substance of our work, and to indicate to the City the scope of possibilities it may have to implement the project as we proceed.

We would very much welcome the opportunity of meeting with the City to further discuss the qualifications and proposals of our team.

While the City is thoroughly familiar with our firm through our previous work on this project, we would welcome the opportunity if appropriate, to invite members of the Parks and Recreation Committee to visit the head offices of Ellerbe Associates in Bloomington, Minnesota. Their staff and technical resources as well as examples of their built projects in the field of Arena/Trade Centre design are indeed extensive and worthy of your careful consideration.







Mr. E. A. Simpson, Esq.

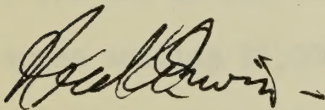
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August 14, 1981

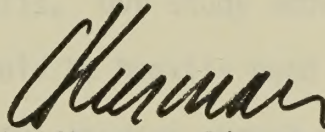
We sincerely appreciate the City's invitation to submit this Proposal for this challenging and most significant addition to the downtown core of Hamilton.

Yours truly,

IBI GROUP and ELLERBE ASSOCIATES, INC.



N. Irwin, Managing Partner,  
IBI Group



L. Sherman, Director,  
IBI Group

LS/1b





CITY OF HAMILTON  
ARENA/TRADE CENTER PROJECT  
PROPOSAL FOR SPECIALIST CONSULTING SERVICES

BACKGROUND AND DESIGN TEAM QUALIFICATIONS

The IBI Group, one year ago, led a comprehensive study of the economic and physical feasibility of developing a stadium and an arena/market analysis involving a wide range of potential North American operators and supported by two local public opinion polls. Our study showed that a modern arena seating 15,000 to 18,000 people would be heavily used and highly successful if developed in downtown Hamilton. Our studies showed that people in Hamilton and as far away as St. Catharines, Mississauga and Guelph would come to see a wide variety of family entertainment: sporting events, trade shows and exhibitions. The facility is not only forecast to operate at a profit to the City, it is projected to result in a significant secondary economic return to the wider retail and service community.

City Council recently adopted the concept for a new civic arena/trade centre located in the heart of Hamilton's redeveloped core area. It will enjoy direct pedestrian links with Jackson Square, Hamilton Place, the new convention centre and art gallery, office buildings and a proposed major hotel. It will take maximum advantage of the City's excellent arterial street system and adequate downtown parking supply, as well as the proposed rapid transit system. Senior levels of government are now indicating their financial support as well.

The City's decision to move ahead with this project at this time is timely, as part of a dramatic trend in the development of major civic arenas/trade centers throughout North America and particularly in the U. S.

# SELECTED COMPOSITE OF CIVIC AND COMMERCIAL EXPERIENCE RELATED TO PROPOSED PROJECT

| Location             | Arena & Stadium | Convention & Exhibition | Theater & Auditorium | Athletic & Recreation | Hotel | Office | Commercial & Retail | Residential | Parking & Landscaping | Planning & Feasibility | Architecture & Engineering | Design/Build & CM | Operations & Management | Interiors & Equipment | Buildings Completed or under construction | Project in planning or design process |
|----------------------|-----------------|-------------------------|----------------------|-----------------------|-------|--------|---------------------|-------------|-----------------------|------------------------|----------------------------|-------------------|-------------------------|-----------------------|-------------------------------------------|---------------------------------------|
| Aberdeen, SD         | •               |                         |                      |                       |       |        |                     |             | •                     |                        | •                          |                   |                         |                       | •                                         |                                       |
| Anchorage, AK        |                 | •                       |                      |                       |       |        |                     |             | •                     |                        | •                          |                   |                         |                       | •                                         |                                       |
| Arlington, TX        |                 |                         |                      | •                     | •     | •      | •                   |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Annapolis, MD        |                 | •                       |                      |                       |       |        |                     |             |                       | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Beaumont, TX         |                 | •                       |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Biloxi, MS           |                 | •                       |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Bloomington, IN      |                 |                         | •                    | •                     | •     |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Bloomington, MN      |                 |                         |                      | •                     | •     |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Bridgeport, CT       |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Burlington, VT       |                 |                         |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Burnsville, MN       |                 |                         |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Cambridge, MS        |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Charleston, WV       |                 | •                       | •                    |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Clarksburg, WV       |                 | •                       | •                    |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Columbia Heights, MN |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Daytona Beach, FL    |                 | •                       |                      |                       | •     |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Dillon, CO           |                 | •                       |                      | •                     | •     |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Fairbanks, AK        |                 | •                       |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Fairfax, VA          |                 |                         |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Flint, MI            |                 | •                       |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Fort Worth, TX       |                 |                         |                      |                       | •     |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Hartford, CT         |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Huntington, WV       |                 |                         | •                    |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Indianapolis, IN     |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Fort Wayne, IN       |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| LaCrosse, WI         |                 | •                       |                      |                       | •     |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Lansing, MI          |                 | •                       | •                    |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Laurel, MS           |                 | •                       | •                    |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Lexington, KY        |                 | •                       | •                    |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Louisville, KY       |                 | •                       | •                    |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Lynchburg, VA        |                 | •                       |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Memphis, TN          |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Miami, FL            |                 | •                       |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Minneapolis, MN      |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Minot, ND            |                 | •                       |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| New Brunswick, NJ    |                 |                         |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Notre Dame, IN       |                 |                         |                      | •                     |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Orlando, FL          |                 |                         |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Providence, RI       |                 | •                       |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Roanoke, VA          |                 | •                       |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |
| Rochester, MN        |                 | •                       |                      |                       |       |        |                     |             | •                     | •                      | •                          |                   |                         |                       | •                                         |                                       |

THE CITY OF ABERDEEN IS CURRENTLY IN THE PROCESS OF SELECTING A DESIGN TEAM FOR THE PROPOSED PROJECT.

THE CITY OF ABERDEEN IS CURRENTLY IN THE PROCESS OF SELECTING A DESIGN TEAM FOR THE PROPOSED PROJECT.



As a result there has been an equally dramatic advance in the technological systems and professional skills related to the design, construction and operations of such facilities. The City is correct in its intention to capitalize as much as possible on the experience and knowledge gained in developing its facility. The resulting Hamilton Arena/Trade Center should be one of the technically finest, most efficiently built and most successfully operated facilities of its time in North America.

Clearly the organization and design of the Hamilton Arena/Trade Center is critically important to the City and technically complicated, requiring the highest competence and experience. As part of our work for the City this past year we have communicated with many firms throughout North America who have designed major civic arena/trade centres, we have inspected and analyzed many of their buildings to assess how well they have been designed, built and operated.

While there were some firms with whom we met who have achieved notable individual projects, the firm that emerged in our experience as clearly having the most extensive and skillful range of built arenas throughout the U. S. was Ellerbe Associates, Inc., based in Bloomington, Minnesota and having other offices throughout the U. S..

The chart opposite illustrates the scope of experience of Ellerbe Associates in the arena design.

To illustrate the achievements of Ellerbe Associates is to cite their recent major projects including the redevelopment of the Hartford Civic Centre Arena, the Lexington Civic Arena and Convention Centre, the





Charleston Civic Arena and Exhibition Hall, the Notre Dame University Athletic and Convocation Centre, the Huntington Civic Centre. The matrix on page 2 and the attached brochures more thoroughly demonstrates the scope and quality of their work.

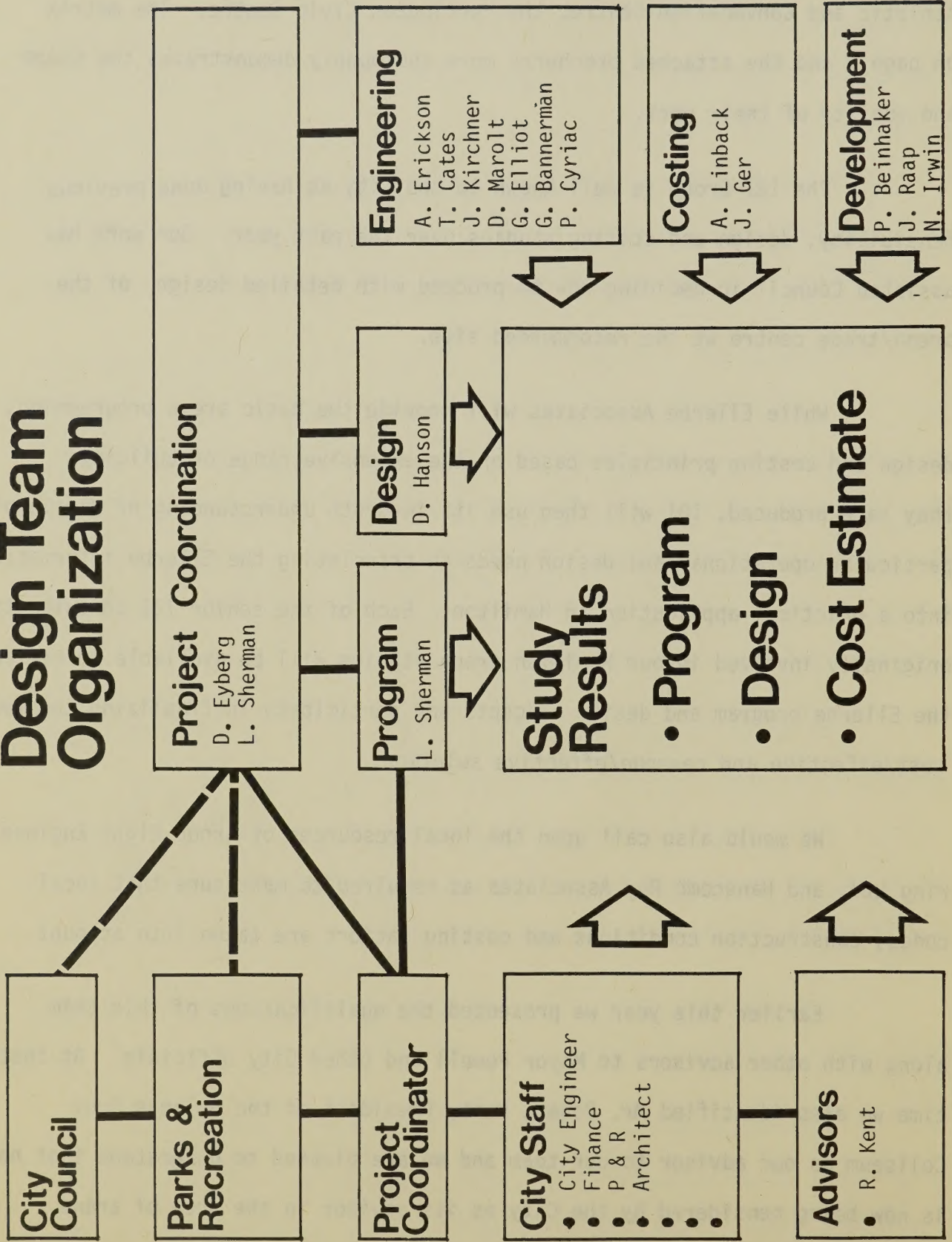
The IBI Group is well known to the City as having done previous feasibility, design and costing studies over the past year. Our work has assisted Council in deciding now to proceed with detailed design of the arena/trade centre at the recommended site.

While Ellerbe Associates will provide the basic arena programming, design and costing principles based on the extensive range of buildings they have produced, IBI will then use its in-depth understanding of Hamilton's particular operational and design needs in translating the Ellerbe information into a practical application in Hamilton. Each of the senior IBI consultants originally involved in our Hamilton arena studies will be available to review the Ellerbe program and design concepts and participate in finalizing the most cost/effective and revenue/effective solution.

We would also call upon the local resources of Group Eight Engineering Ltd. and Hanscomb Roy Associates as required to make sure that local codes, construction conditions and costing factors are taken into account.

Earlier this year we presented the qualifications of this team along with other advisors to Mayor Powell and other City officials. At that time we also identified Mr. Robert Kent, President of the Atlanta Omni Coliseum as our advisor to our team and we are pleased to understand that he is now being considered by the City as its advisor in the area of arena

# Design Team Organization





management and operations. We would look forward to working closely with him and benefitting from his input throughout our work.

In addition, we would call upon the consultation of selected representatives from the International Association of Auditorium Managers (IAAU) which has formed a Building Managers Consulting Group to assist in the planning and design of civic assembly facilities.

#### ORGANISATION AND STAFFING

The member firms who make up this proposal are committed to functioning for the purpose of this project as a single integrated team rather than as separate firms. Key individuals from each firm will be assigned to the team in accordance with their professional experience and skill, and as determined by the requirements of the work program.

In consultation with the City, either IBI or Ellerbe Associates will assume the prime contractual responsibility in the project. In terms of carrying out the work, however, key responsibilities will be assigned to various members of our respective staffs as illustrated in chart opposite. This chart indicates the relationship between the key functions both on the part of the City and its advisors, and the design team, for successfully producing the required results. Those key functions are:

##### On the Part of the City

City Council

Parks and Recreation Committee

Project Coordinator, a Senior City Official Appointed by the Committee

Department Officials including the City Engineer, Finance Director, Commissioner of Parks and Recreation, City Architect and others.

Special Adviser.





On the Part of the Design Team

Project Coordinators

Program Team Leader

Design Team Leader

Consulting Engineers

Cost Consultants

Urban Development Advisers

The primary role of Ellerbe Associates will be to provide the technical expertise uniquely related to the design and construction of civic arenas. Ellerbe Associates will therefore assume the primary design and engineering responsibility and provide the basic programming and costing information.

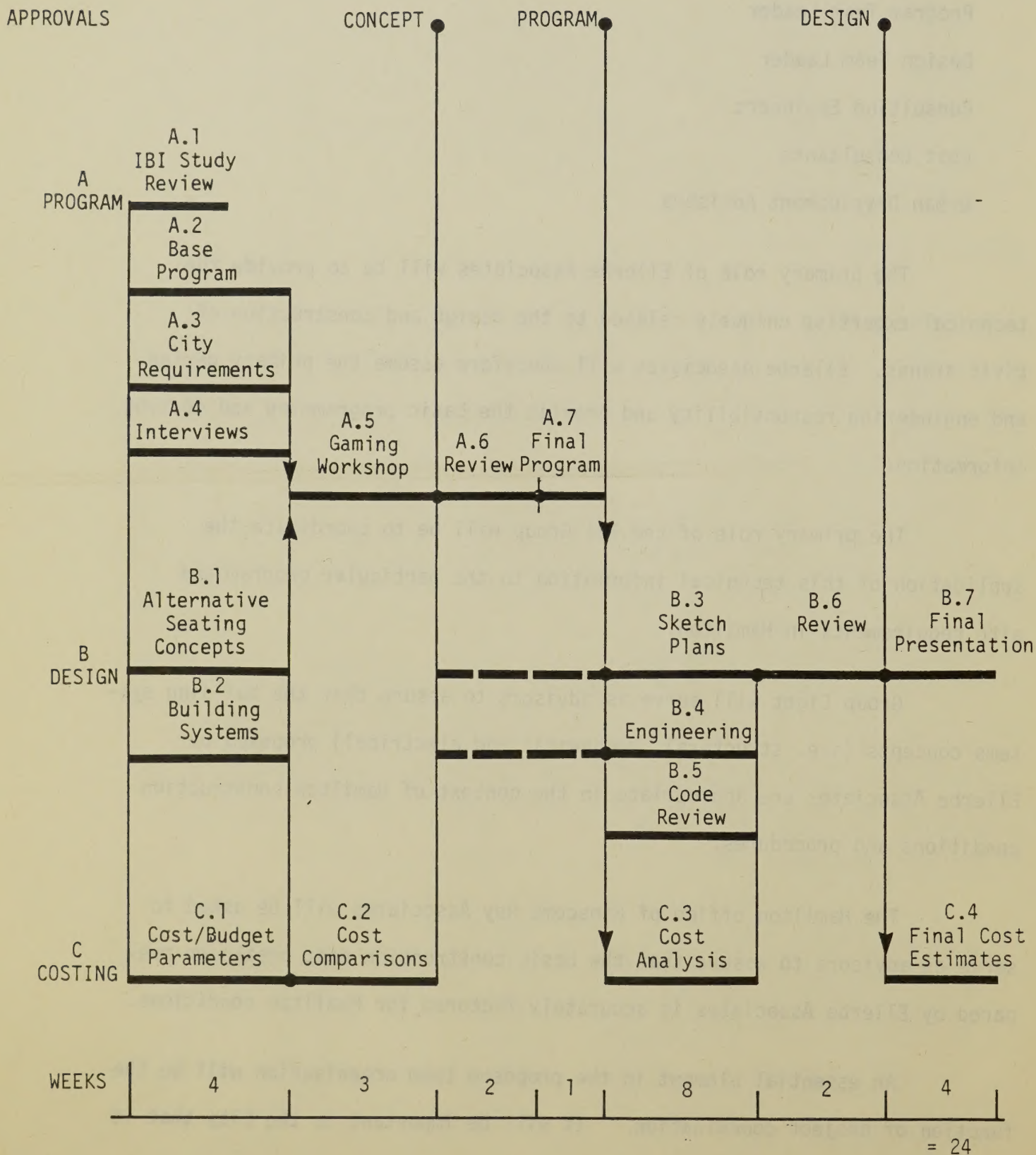
The primary role of the IBI Group will be to coordinate the application of this technical information to the particular program and site requirements in Hamilton.

Group Eight will serve as advisors to assure that the building systems concepts (i.e. structural, mechanical and electrical) proposed by Ellerbe Associates are appropriate in the context of Hamilton construction conditions and procedures.

The Hamilton office of Hanscomb Roy Associates will be asked to serve as advisors to ensure that the basic construction cost breakdown prepared by Ellerbe Associates is accurately factored for Hamilton conditions.

An essential element in the proposed team organisation will be the function of project coordination. It will be important to the City that it

# Major Task Network





name a Senior Official who will act on its behalf to ensure proper liaison between the consultants and others in the City. It will be equally important that senior members of both Ellerbe Associates and the IBI Group assume respective responsibilities for coordination of work in the Ellerbe offices and locally in Hamilton. Those nominated for this position are:

- Don Eybreg, Executive Project Manager for the national Ellerbe practice for design and construction of civic centres, arenas and hotel developments.
- Larry Sherman, a Director of the IBI Group responsible for managing the firm's design practice in Ontario and one of the principal consultants on previous Hamilton arena studies in the City.

Each of the professional staff members assigned to this project on behalf of the design team is appropriately noted on the attached team organization chart, and resumes are attached in Appendix A.

#### APPROACH AND PROCEDURES

In accordance with the Terms of Reference we provide below a brief outline of the general approach and specific tasks required to complete each of the three major parts (A, B and C) of this project: Space and Facilities Program, Concept Design and Estimate of Project Cost. The major task network diagram opposite indicates how these specific tasks overlap in time and interact to ensure efficient application of our efforts. Part D, on-going design review is discussed as part of our fee estimates in a later section of this proposal.

#### Part A. Space and Facilities Program

The ultimate success of this facility in terms of how well it functions and thus how socially and financially viable it is, will largely





depend on the initial decisions which are made as to which functions, spaces, facilities and equipment are included in the design. There are two important dimensions to the programming of this facility: we must first be careful to consider the entire range of elements which experience in developing arenas throughout North America has shown to be useful, and of all the functional and technological choices available, we must then place particular importance on those which best serve the demands of the Hamilton market area. These two dimensions must be integrated efficiently and effectively by means of a systematic and thorough programming procedure.

Ellerbe Associates' extensive experience in designing and building numerous civic arenas can readily provide the basic information required. IBI's market research into the potential requirements within the Hamilton market area will provide the background for applying the basic information to meet local needs. Ellerbe Associates have carried out thorough evaluations of their built facilities and thereby are able to add the practical knowledge of what has been successful or unsuccessful. IBI will draw upon its in-depth experience in analysing the potential consumer market and interviewing potential users, and will thereby be able to assist in assuring that proper emphasis is placed upon local market requirements when these program choices are made in consultation with the City.

The importance of Ellerbe's experience in designing and constructing multi-activity facilities merits emphasis. A myriad of practical questions must be asked and issues raised, based on experience of having programmed and designed many arenas to suit various market and physical conditions. Experience in any one area does not necessarily provide the





understanding of program requirements in other areas. Ultimately the program must be tailored to the local Hamilton condition. Correct importance must be placed on optimizing the inevitable trade-offs among a variety of factors:

- various types of functions and major events
- various support functions, i. e. press and media facilities, corporate boxes, multiple locker facilities for tournament competitions, lighting and sound systems appropriate to various types of events, etc.
- the ability to efficiently and quickly change the facility from one activity use to another
- the effect of these factors on capital cost, operating cost and net revenue.

The basic tasks to accomplish this part of the project are briefly described as follows:

- A.1 Led by IBI, the study team will review the previous IBI feasibility studies and a review meeting will be held with the City.
- A.2 Ellerbe Associates will prepare a base program of facilities, spaces and equipment which may be appropriate to the facility, based on their review of a number of similar projects throughout the U. S..
- A.3 The study team will review documents provided by City staff regarding its estimates of functional and facilities requirements, and compare it with Ellerbe's base program.
- A.4 The design team will conduct systematic interviews with individuals representing potential users and operators of the facility (e.g. N.H.L. teams, other event producers and directors, booking agents, the media, City staff representing potential management, City advisors, etc.) to obtain various viewpoints regarding program requirements.
- A.5 All of the above information will be analysed and presented at a programming workshop to which all of the various potential user groups and City representatives will be invited. This workshop will employ a unique programming technique called "gaming" which IBI has used in a number of similar situations. The purpose is to encourage interaction between various interested parties





with a view to identifying trade-offs which must be made. The participants are encouraged to graphically demonstrate their views by placing symbols of various functions to scale within a generalized three dimensional plastic model of the arena space. Various situations are simulated and discussed among the participants. Trade-offs between alternatives are examined including (a) amounts of space included for various functions; (b) locational criteria of spaces within the building; (c) requirements for various services in building systems; (d) operational and management policies effecting use and economics; (e) effects of these alternatives on capital cost and net revenues. We have found that the gaming method is a most efficient and effective method of achieving the appreciation for the programming problems and a consensus to the resolutions.

A.6 Resulting from the conclusions to the gaming workshops an outline of a final space and facilities program is prepared and reviewed with City.

A.7 Based on the conclusions reached from the gaming workshop sessions and in consultation with City staff, a final space program is prepared which includes (a) building and site design principles (e.g. connections to adjacent users, standards governing sight lines, energy efficiency, environmental performance, etc.); (b) the amounts of space to be provided; (c) performance requirements of each space (e.g. lighting levels, security, public access, mechanical and electrical requirements, etc.); (d) functional relationships between spaces (i.e. which spaces need to be adjacent to others, which should be isolated from others, etc.). This final document is then submitted to the City for approval before proceeding to prepare architectural and engineering concept designs and sketch plans.

## Part B. Concept Design

Ellerbe Associates will be primarily responsible for initial facilities design and building systems analysis. The firm provides full architectural and engineering services (i.e. structural, mechanical and electrical) for its major arena projects. These services also, where appropriate, include special systems design such as lighting and sound/communications, equipment scheduling and purchasing. The firm has in-house computerized architectural graphics capabilities and a computer programmed for determining the appropriate sight lines for every row of any particular arena seating plan. They can readily produce and graphically portray a range of alterna-





tive arena seating configurations applied to the Hamilton site. It is thus in the area of conceptual arena design that Ellerbe Associates is most critically involved in the project work program.

These design concepts will be applied to the Hamilton site working closely with IBI consultants and calling upon Group Eight Engineering, to advise as required. Close working liaison in this work will also be maintained with the City engineer and other City staff.

The major tasks involved in this part of the project are briefly described as follows:

B.1 Alternative arena seating configurations and massing concepts will be analysed by Ellerbe Associates in terms of their inherent functional efficiencies (e.g. sight lines, access, etc.) and as they fit within the limited dimensions of the Hamilton site. These alternatives will be based on a number of recent facilities designed by other firms. This analysis will include a comparison of two basic seating configurations and a number of variations of each: (a) the longitudinal axis configuration such as the Hartford Civic Center Arena and the Denver McNicholl's Arena; and (b) the 45° axis configuration such as Lexington Civic Centre and the Atlanta Omni.

B.2 To the above analysis of alternative seating configurations is added a value assessment of major building systems. Engineers on the design team will evaluate the alternatives including mechanical and electrical systems, structural systems, building skin (cladding) systems, and functional systems including parking facilities, lighting and sound systems and auxiliary arena facilities.

The results of B.1 and B.2 will be compiled to described alternative concept designs that should be reviewed at the gaming workshop sessions described above in A.5. These alternative design concepts will be tested against the same set of criteria as applied above to programming issues, i.e. functional, operational and economic factors.





- B.3 Once the facilities and space program is finalized and approved, architectural sketch plans will proceed. Scaled drawings as well working models will be prepared for discussions with the City.
- B.4 In conjunction with the architectural sketch plans, engineering sketch planning will proceed. More detailed value assessment of engineering systems will be carried out and integrated with the architectural sketch plans.
- B.5 Likewise in conjunction with architectural and engineering sketch plans, IBI and Group Eight will carry out a review of relevant Ontario Building Codes including Fire, Health and Environment so that the final sketch plans produced by the design team will accurately reflect these requirements.
- B.6 Review of the sketch plans will then be carried out between the design team and the City, and approval to proceed with finalizing these plans will be obtained.
- B.7 Final presentation materials will then be prepared describing the design concepts and sketch plans in detail and to scale, including appropriate sketches and a working site model which will include the relationship between the Arena/Trade Center and adjacent buildings on the block and a major pedestrian connection to the redevelopment block south of King Street.

#### Part C. Estimate of Project Cost

Project cost estimating is an integral part of the programming and designing work outlined above. It is intended to serve three basic purposes:

- as advice to the programmers and designers so that their decisions are properly influenced by the reality of cost
- to establish overall project budgets
- to provide for project control during the detailed design and construction phases.

We propose to include in this part of the project, three categories of costing:

- capital costing would be systematically provided, making use of a computerized cost breakdown system designed and operated by Ellerbe Associates. Ellerbe has applied cost breakdowns by





building component of each project it has built throughout the U. S.. This breakdown will then be appropriately factored to current Canadian dollars and to relevant local Hamilton conditions (including the effect of local labour and materials costs, seasonal construction complications). Ellerbe Associates' record of designing and building civic arenas including provisions of guaranteed budgets in many cases, is most extensive. For example the Lexington facility was produced for 16% less than its original budget based on a design by another firm.

- Operating costs will be provided on a comparative basis for alternative designs, using the forecast prepared by IBI as part of the 1980 Feasibility Study as a base. IBI will consult with City staff and advisors in refining these forecasts as appropriate to the current designs as they evolve.
- Revenue forecasts will likewise be prepared on a comparative basis for various programming and concept design alternatives. This is essential input to assist the City in assessing its alternatives and is fundamental to the ultimate facilities program and concept design to be adopted. IBI's experience to date in assisting the City in preparing these forecasts will be applied to providing this information.

The following brief task-descriptions indicate the work to be carried out in this part of the project:

- C.1 Capital cost standards will be assembled, adjusted to current Canadian dollars and local Hamilton norms. This base information of unit dollar costs will be used in preparing broad capital budget parameters within which concept designs will be prepared. This information will also provide the basis for outlining cost components which will be applied later in the project in preparing the final estimates.
- C.2 In support of the gaming workshop sessions described in A.5 in which programming and building configuration alternatives will be assessed, the cost consultants will provide these workshops with comparative capital cost advice as required to assist in their deliberations. Likewise, the comparative operating implications of alternatives being discussed will be provided, based on IBI's previous operating cost forecast information included in the 1980 Feasibility Study.





C.3 In the course of preparing architectural and engineering sketch plans, the cost parameters and costing structure prepared in task C.1 will be applied to produce estimated capital cost data for each of the major building systems. These will be compared with the parameters originally established, as a check against any elements of the sketch plans which may be significantly less or more costly than originally targeted. This information will then support a preliminary capital cost estimate which will be included in the review of sketch plans to be carried out by the City and the design team in task B.6.

C.4 Once review of the sketch plans and preliminary cost estimates have been made and approved by the City, final cost estimates and breakdowns will be prepared in report form and submitted as part of the final presentation materials in task B.7. These final estimates will reflect the comments by the City made during the review in task B.6.

#### COST AND TIME ESTIMATES

We estimate that the work outlined in Parts A, B and C of this project can be completed in approximately 6 months and for a total lump sum fee of \$312,000.00. Out of pocket expenses including typing, computer time, reproductions, travel, long distance calls and deliveries would be charged in addition at cost as incurred, up to a maximum of \$46,800.00.

The anticipated breakdown of the total fee, allocated to each part of the work, is as follows:

|                                      |              |
|--------------------------------------|--------------|
| Part A, Space and Facilities Program | \$ 68,600.00 |
| Part B, Concept Design               | 193,400.00   |
| Part C, Estimate of Costs            | 50,000.00    |





For purposes of estimating the time and fees which might be required in Part D to act on behalf of the City in reviewing the General Consultants' work, we have assumed an average of 10 man-days (7 hours per day) per month over a 6 month period at an average per diem of \$600.00 for relatively senior consulting participation. This would require a budget of \$36,000.00. The actual per diem rates would be subject to the professional level of the individuals involved.

Each of these budgets are subject to our confirming with the City a detailed work program and time schedule before commencement of the project. The agreed upon work program will include definition of end products and major meetings required, the extent and quality of information to be provided by the City, and the deadlines within which the work is to be carried out.

A monthly billing schedule related to this work program would also be confirmed at that time.





## Responsibility:

### Executive Project Manager:

#### Commercial/Educational/Health Facilities Architecture:

Manages all aspects of a project and personnel assigned to the project from inception to completion. Functions as the direct liaison between the owner and the architect, engineer and planner, assuring that all aspects of the owner's program are satisfied.

### Academic and Professional Background:

Registered Architect, State of Minnesota

National Council of Architectural Registration Boards (NCARB)

#### Education:

Bachelor of Architecture, University of Minnesota

Recipient, Minnesota Scholarship Award

Recipient, Honors Group European Study Program, 1966, 1967  
University of Minnesota

### Professional Experience:

Milton, Wegmann & Associates Architects, Inc., Minneapolis,  
Minnesota - Designer

Michael Planning and Research, Inc., Minneapolis, Minnesota  
Designer

Michael Planning and Research, Inc., State of Minnesota,  
Winnetka - Designer

#### Author:

University of Minnesota, Minneapolis, Minnesota

#### March 19

International Association of Architects and Engineers, Design  
Conference (Speaker, March 1978)

International Association of Architects and Engineers, National  
Convention (Speaker, July 1978)

Modern Space Architecture (Article, Fourth Quarter 1978)

New England Public Works Conference, Hartford, Connecticut  
(Speaker, April 1987)

### Affiliations:

American Institute of Architects, Minnesota Society AIA

National Fire Protection Association, Sectional Committee on  
Assembly and Educational Occupancies, voting member  
number (NFFA 107)

### Project Experience:

#### Civic Commercial/Sports:

Minnesota's Activities Facility/Robert Crown Siding Center

U.S. Naval Academy, Annapolis, Maryland

## APPENDIX

### CURRICULUM VITAE OF KEY STAFF





**Responsibility:**

**Executive Project Manager**

**Commercial/Educational/Public Facilities Architecture**

Manages all aspects of a project and personnel assigned to the project from inception to completion. Functions as the direct liaison between the owner and the architect, engineers and planners, assuring that all aspects of the owner's program are satisfied.

**Academic and Professional Background:**

Registered Architect, State of Minnesota

National Council of Architectural Registration Boards (NCARB)

Certification

Bachelor of Architecture, University of Minnesota

Recipient, Minnegasco Scholarship Award

Recipient, Honors Group European Study Program, Rome, Italy,

University of Minnesota

**Professional Experience:**

Matson, Wegleitner & Abendroth Architects, Inc., Minneapolis, Minnesota - Designer

Midwest Planning and Research, Inc., Minneapolis, Minnesota - Designer

Midwest Planning and Research, Inc./State of Minnesota, Wild River - Rivers Study Researcher and Contributing Author

University of Kentucky Fire Safety Conference (Speaker, March 1977)

International Association of Auditorium Managers, Region 5 Conference (Speaker, March 1978)

International Association of Auditorium Managers, National Convention (Speaker, July 1978)

Modern Steel Construction (Article Fourth Quarter 1979)

New England Public Works Conference, Hartford, Connecticut (Speaker, April 1980)

**Affiliations:**

American Institute of Architects, Minnesota Society AIA

National Fire Protection Association, Sectional Committee on Assembly and Educational Occupancies, voting committee member. (NFPA 101)

**Project Experience:**

**Civic Commercial/Sports**

Midshipman's Activities Facility/Robert Crown Sailing Center, U.S. Naval Academy; Annapolis, Maryland





1976 "Excellence in Architecture" NFEC/AIA  
Dahlgren Hall, U.S. Naval Academy; Annapolis, Maryland  
1976 "First Honor Award" NFEC/AIA  
1976 "Merit Award" National Trust for Historic  
Preservation/AIA  
1977 "Blue Seal Award" Secretary of Defense/AIA  
1980 "Honor Award" Minnesota Society American Institute  
of Architects  
Lexington Center, Lexington, Kentucky  
Hyatt Regency Hotel Lexington, Lexington, Kentucky  
1977 "Merit Award" Minnesota Society American  
Institute of Architects  
1978 "Honor Award" Kentucky Society American Institute  
of Architects  
1981 "Merit Award" The Downtown Research and Development  
Center, New York  
Magic Pan Restaurant, Lexington, Kentucky  
Dakota Dome, University of South Dakota, Vermillion,  
South Dakota (Consulting)  
Huntington Civic Center, Huntington, West Virginia  
Huntington Parking Ramp, Huntington, West Virginia  
Harvard University Athletic Facilities, Cambridge,  
Massachusetts (Design Competition)  
Orlando Civic Center, Orlando, Florida (Study)  
Charleston Civic Center, Charleston, West Virginia  
Minnesota Valley Coliseum, Mankato, Minnesota (Study)  
Hartford Coliseum (Reconstruction), Hartford, Connecticut  
1980 "Honor Award" American Consulting Engineers Council  
1980 "Grand Award" Minnesota Society/American Consulting  
Engineers Council  
1981 "Grand Award" Minnesota Society/American Consulting  
Engineers Council  
Daytona Beach Civic Center, Daytona Beach, Florida  
Lansing Convention Center, Lansing, Michigan  
Block 100 Hotel/Office/Retail Complex, Lansing, Michigan  
Rochester Convention Center Hotel, Office Building, Rochester,  
New York (Study)  
Tyler Convention Center, Tyler, Texas  
Cincinnati Convention Center Expansion, Cincinnati, Ohio  
Toledo Arena/Civic Center, Toledo, Ohio

**Other**

State Farm Insurance Co., Corporate Headquarters,  
Bloomington, Illinois  
First National Bank, Remodeling, St. Paul, Minnesota  
Northwestern National Bank, Remodeling, Minneapolis, Minnesota  
AaCron Metal Finishing Plant, New Hope, Minnesota  
Northwestern Hospital, Nurse's Educational Building, Minneapolis,  
Minnesota  
Bethel College, Seminary/Academic Complex, Arden Hills,  
Minnesota  
Wayzata Schools, Administration Building, Wayzata, Minnesota

Participated as a member of project teams involved in the  
design of recreational projects of national significance





**Responsibility:**

Executive Architect

Responsible for design overview and development ventures.

**Academic and Professional Background:**

Bachelor of Architecture, University of Minnesota

Masters of Architecture, Massachusetts Institute of Technology (MIT)

Post Graduate Fulbright Scholar, University of Copenhagen, Denmark

Honorary Doctorate, University of Central America

Trustee, Illinois Benedictine College

Professor of Architecture, UICC, UTK

Professor of Urban Science, UICC

Head, Department of Architecture, University of Illinois, Chicago (UICC)

Program Director, Urban Studies Center, University of Illinois, Chicago (UICC)

Representative, State Board of Higher Education, State of Illinois

Dean, School of Architecture, University of Tennessee (UTK)

Board of Directors, Association for the Study of Man-Environment Relations (ASMER), International

**Professional Experience:**

Registered Architect

Design Associate, Ralph Rapson & Associates, Minneapolis, Minnesota

Executive Design Associate, Hugh Stubbins and Associates, Cambridge, Massachusetts

President, Mega I Ltd. (Professional Service Corporation), Vienna, Chicago, San Francisco

Executive Director, Illinois Center Corporation, Chicago, Illinois

Chairman, Board of Directors, Mega International Development Corporation, Vienna, NYC, Chicago, San Francisco

President, Consort International, Inc., Knoxville, Tennessee

Executive Architect, Ellerbe, Inc., Minneapolis, Minnesota

**Partial Inventory of Related Experience:**

Illinois Central Air-rights Project, Chicago, Illinois

-a high density mixed use development, Executive Director of Development

Lago de Guadalupe New Town, Mexico, Distrito Nacional, Master Planner/Developer





Energy Expo '82, Knoxville, Tennessee

- a special category B.I.E. exposition, concept, formulation and illustration. Consultant to Knoxville International Energy Exposition, Inc. (KIEE) and McCarty Bullock & Holsaple (MBH), master planners of Expo '82.

University of Wisconsin Racine Campus, Racine, Wisconsin, Master Planner

Lynchburg Convention Complex, Lynchburg, Virginia

- hotel convention center, office building, parking structure and pedway system, Master Planner/Architect

Autoworld Project, Flint, Michigan

- permanent exhibition facilities, commercial mall and housing complex, Master Planner/Architect

Landmark of Tennessee, Knoxville, Tennessee

- residual development for Expo '82 consisting of hotel conference center, arena/exhibition hall, state office building and parking structures, Master Planner/Architect/Developer

International Trade Exposition, Chicago Illinois

- a permanent capital goods marketing complex, Master Planner/Architect/Developer

Centre Square Finance Complex, Knoxville, Tennessee, Master Planner/Architect

Volusia County Civic Center, Daytona, Florida, Master Planner/Architect

Chattanooga Trade Center & Hotel, Chattanooga, Tennessee

- a convention hotel, exhibition hall, parking structure and pedway system, Master Planner/Architect

#### Related Research:

Developmental Analysis Model, an econometric model for analysis of developmental change,

- sponsored by City of Downers Grove, Illinois, and UICC Urban Studies Center (1972)

Alternative Futures of the Tellico Project (Tennessee River), sponsored by U.S. Congress (1978)

Spatial Configuration as a Determinant of Commercial Potential, sponsored by the Fulbright Foundation and the Government of Denmark (1958)

Survey and Analysis Community Perceptions and Values, sponsored by the Committee of United People and UICC Urban Studies Center (1968)

Mud Island Report, a research of the Mississippi River watershed and conceptual development plan for a national interpretive center and waterfront park,

- sponsored by the National Council of Arts and the Environment (1974)

A Socio-Spatial Analysis of User Needs,

- sponsored by Oak Ridge National Laboratory (1976)





**Responsibility:**

Director, Structural Design Department

Responsibilities include the overall leadership, direction, management, planning, and coordination of all structural engineering activities consistent with the overall objective of furnishing the highest level of professional structural engineering consulting services for all projects.

**Academic and Professional Background:**

Bachelor of Civil Engineering, University of Minnesota

Registered to practice in Minnesota and twenty other states  
Member Governor's Occupational Safety and Health Advisory Board

Member of Civil Engineering Continuing Education Program,  
University of Minnesota

**Professional Experience:**

Design Engineer; Toltz, King, Duvall and Anderson &  
Associates, St. Paul, Minnesota

Survey Crew Chief, Minnesota State Highway Department,  
St. Paul, Minnesota

**Affiliations:**

American Society of Civil Engineers

National Society of Professional Engineers

American Institute of Steel Construction

University of Minnesota "M" Club

**Project Experience:**

**Medical**

La Crosse Lutheran Hospital, La Crosse, Wisconsin

Wilkes-Barre Hospital, Wilkes-Barre, Pennsylvania

Sioux Valley Hospital, Sioux Falls, South Dakota

West Roxbury V.A. Hospital, West Roxbury, Massachusetts

Touro Infirmary, New Orleans, Louisiana

Travis Clinic, Jacksonville, Texas

**Commercial/Industrial**

State Farm Insurance Co., Various Buildings

Northwestern Bell Telephone Company, Various Buildings

**Educational/Public/Government**

Dakota Dome, University of South Dakota, Vermillion,  
South Dakota

Phillips Community Pool and Gymnasium, Minneapolis, Minnesota

Northern Iowa Area Community College, Dormitory, Mason City,  
Iowa

Dakota County Courthouse, Hastings, Minnesota

Annapolis Swim & Football Center, U.S. Naval Academy,  
Annapolis, Maryland

Harvard University Athletic Facilities, Cambridge,  
Massachusetts (Design Competition)

Providence Civic Center, Providence, Rhode Island

Lexington Center, Lexington, Kentucky

Lexington Hotel, Lexington, Kentucky

Hartford Coliseum (Reconstruction), Hartford, Connecticut

St. Paul Civic Center Roof Evaluation, St. Paul, Minnesota

**International**

MODA Medical Center, Ministry of Defense and Aviation,  
Al Kharj, Saudi Arabia

Taif General Hospital, Ministry of Defense and Aviation,  
Taif, Saudi Arabia





**Responsibility:**

Project Engineer, Mechanical Engineering

Responsible for providing direction and coordination related to the efficient planning, organizing and controlling of all mechanical study, design and construction document preparation phases of a project from inception to completion including plumbing, process piping, heating, ventilating, air conditioning, refrigerating and temperature control.

**Academic and Professional Background:**

Bachelor of Science, University of Minnesota, Minneapolis

Bachelor of Mechanical Engineering, University of Minnesota, Minneapolis

Registered Professional Engineer: Minnesota

**Project Experience:**

**Medical**

Carle Foundation Hospital and Clinic, Urbana, Illinois

Goshen General Hospital, Goshen, Indiana

St. Mary's Hospital, Livonia, Michigan

Bethesda Hospital, St. Paul, Minnesota

Midway Hospital, St. Paul, Minnesota

St. John's Hospital, St. Paul, Minnesota

St. Lukes Hospital, St. Paul, Minnesota

Holy Spirit Hospital, Harrisburg, Pennsylvania

Tyler Memorial Hospital, Tunkhannock, Pennsylvania

Wilkes-Barre General Hospital, Wilkes-Barre, Pennsylvania

Putnam Memorial Hospital, Bennington, Vermont

Waconia Ridgeview Hospital, Waconia, Minnesota

Travis Clinic, Jacksonville, Texas

Mary Imogene Bassett Hospital and Clinic, Cooperstown, New York

Minneapolis Rehabilitation Center, Minneapolis, Minnesota

Central Baptist Hospital, Lexington, Kentucky

Mease Hospital, Dunedin, Florida

**Commercial/Industrial**

Minnesota State Automobile Association Office Building, Burnsville, Minnesota

Fisher Nut Company Cold Storage Warehouse, Suffolk, Virginia

Sunray Shopping Center, St. Paul, Minnesota

Wayzata School District Administration Office Building, Wayzata, Minnesota





Milwaukee Mutual Automobile Insurance Company Office  
Building, Milwaukee, Wisconsin  
Heritage Mutual Insurance Company Office Building,  
Sheboygan, Wisconsin  
Minnesota State Administrative Office Building, St. Paul,  
Minnesota  
Automobile Club of St. Paul Office Building, St. Paul,  
Minnesota  
Fisher Nut Company Plant Addition, St. Paul, Minnesota  
Lexington Center Hotel, Lexington, Kentucky  
Flint Hyatt Regency, Flint, Michigan  
Longyear Company, Minneapolis, Minnesota

**Educational/Public/Government**

Jordan Elementary and High School, Jordan, Minnesota  
Owatonna High School Additions, Owatonna, Minnesota  
Rochester Area Vocational Technical School, Rochester,  
Minnesota  
Concordia College Science Building, St. Paul, Minnesota  
Junior High School Addition, South St. Paul, Minnesota  
Lincoln Elementary School Addition, South St. Paul,  
Minnesota  
Wayzata Elementary School, Wayzata, Minnesota  
West St. Paul Elementary School, West St. Paul, Minnesota  
Lexington Civic Center, Lexington, Kentucky  
Huntington Civic Center, Huntington, West Virginia  
Hartford Civic Center, Hartford, Connecticut  
Charleston Civic Center, Charleston, West Virginia





**Responsibility:**

**Director Electrical Design Department**

The responsibilities include staff supervision, assisting in department, management and assisting in project management by providing engineering and management expertise as necessary; which includes selection of the best design team for the given project and performing project reviews of design concepts, project budgets, value engineering concepts, life cycle costing and the total electrical systems during the design phase.

Continually monitor the overall quality of projects and insure that the necessary communications between the other disciplines and between the client are maintained, in order to assure that the respective client gets a product equal or greater than his expectations for the least amount of money.

**Academic and Professional Background:**

Engineering Studies, University of Minnesota

Electronics, St. Paul Vocational School,

St. Paul, Minnesota

Registered to practice in the State of Wisconsin

**Affiliations:**

International Association of Electrical Inspectors

National Fire Protection Association

Illuminating Engineering Society

Institute of Electrical & Electronic Engineers

**Project Experience:**

**Medical**

William Beaumont Hospital - Second Addition,  
Royal Oak, Michigan

Amsterdam Hospital - Amsterdam, New York

Shrine Burn Institute - Galveston, Texas

Bethesda Lutheran Hospital - 1965 Addition and Alterations,  
St. Paul, Minnesota

Shrine Burn Institute - Cincinnati, Ohio

Minnesota Masonic Home Infirmary Building, Bloomington  
Minnesota

St. Lukes Hospital - Addition and Alterations, St. Paul,  
Minnesota

Goshen General Hospital - Addition and Remodeling, Goshen,  
Indiana

Sioux Valley Hospital - Phase I Addition,





Sioux Falls, South Dakota  
Hahnemann Hospital - Seventh Floor Coronary Care Unit,  
Philadelphia, Pennsylvania  
St. Lukes Hospital - Coronary Care Unit,  
St. Paul, Minnesota  
Rutland Hospital - Addition and Alterations, Rutland,  
Vermont  
Waconia Municipal Hospital - Addition and Remodeling,  
Waconia, Minnesota  
Iowa Methodist Hospital - Phase I Addition,  
Des Moines, Iowa  
St. Raphael Hospital - Hospital Addition,  
New Haven, Connecticut  
Mount Vernon Medical Complex - Fairfax County, Virginia  
Mary Free Bed Hospital and Rehabilitation Complex,  
Grand Rapids, Michigan  
New Supply and Distribution Center - Medical College of  
Virginia Hospital - Virginia Commonwealth University,  
Richmond, Virginia  
Pekin Hospital Addition, Pekin, Illinois  
St. Paul Ramsey-Gillette Hospital Addition,  
St. Paul, Minnesota  
Wenatchee Valley Clinic Addition and Alternations,  
Wenatchee, Washington  
Sweetwater Hospital, Sweetwater, Wyoming  
Spinal Cord Injury Rehabilitation Center - Veterans  
Administration V.A.H., West Roxbury, Massachusetts  
Additions and Alterations to Irwin Army Hospital,  
Fort Riley, Kansas  
Bethesda Naval Hospital, Bethesda, Maryland  
New Hospital, Medical College of Virginia, Richmond,  
Virginia  
United/Children's Hospital, St. Paul, Minnesota

**Commercial/Industrial**

3M Office Building (220), St. Paul, Minnesota  
Northern States Power Company - General Office Building,  
Minneapolis, Minnesota  
Northern Electric Coop - New Headquarters Facility,  
Aberdeen South Dakota  
Automobile Club of St. Paul, Minnesota  
Sioux Valley Hospital - Total Energy Plant,  
Sioux Falls, South Dakota  
St. Lukes Hospital - Parking Ramp, St. Paul, Minnesota  
St. Lukes Hospital - Medical Office Building, St. Paul,





Minnesota

St. Raphael Hospital - Parking Ramp, New Haven, Connecticut  
St. Raphael Hospital - Heating and Cooling Plant, New Haven,  
Connecticut  
Harry Diamond Laboratories - Phase III, Baltimore, Maryland  
Mount Vernon Heating/Cooling Plant, Fairfax County, Virginia  
Bethesda Naval Hospital - Parking and Warehouse, Bethesda,  
Maryland

Educational/Public/Government

Concordia College-Science Building, St. Paul, Minnesota  
Notre Dame - Accelerator Addition No. 1, South Bend,  
Indiana  
Georgetown University - Phase A & B Utilities,  
Washington, D.C.  
St. Francis College - Science Building, Fort Wayne,  
Indiana  
North Iowa Area Community College - Tech Science Unit No. 1,  
Mason City, Iowa  
Notre Dame University - Biology Laboratory, South Bend,  
Indiana  
North Iowa Area Community College - Technical Science  
Unit IV, Mason City, Iowa  
Providence Civic Center, Providence, Rhode Island  
Minnesota University Animal Science Building,  
University of Minnesota - St. Paul, Minnesota  
Campus  
Notre Dame University - Haggard Hall of Psychology,  
South Bend, Indiana  
Lexington Center (Civic Center), Lexington, Kentucky  
Bethesda Naval Hospital - Appendix D Engineering Studies,  
Bethesda, Maryland  
Hennepin County Adult Detention Center - Minneapolis,  
Minnesota  
Central High School, St. Paul, Minnesota  
Charleston Civic Center, Charleston, West Virginia  
Worcester Civic Center, Worcester, Massachusetts  
Hartford Civic Center, Hartford, Connecticut





**Responsibility:**

**Project Captain**

**Commercial/Educational/Public Facilities Architecture**

Responsible for coordination, scheduling and production of design development and construction documents with all required project disciplines. Functions as a backup to the Project Manager and directly supervises the architectural project team to assure technical quality.

**Academic and Professional Background:**

Vermillion State Junior College, Ely, Minnesota

Dunwoody Technical Institute, Minneapolis, Minnesota

**Professional Experience:**

CECO Steel Corporation, Minneapolis, Minnesota

U.S. Army, Graphics Department

**Project Experience:**

**Commercial/Industrial**

Rochester Post Bulletin, Addition and Alterations, Rochester, Minnesota

Bockstruck Jewelers, Alterations, St. Paul, Minnesota

Northwestern Bell, Data Processing Center, Plymouth, Minnesota

3M Company, St. Paul, Minnesota

Electro Products Building 260

Health Care Building 270

Dining Facility Building 265

State Farm, Southeastern Regional Office, Jacksonville, Florida

Western Life Insurance Company Corporate Headquarters, Woodbury, Minnesota

Hyatt Regency at Lexington Center, Lexington, Kentucky

**Educational/Public/Government**

University of Notre Dame, South Bend, Indiana

Athletic and Convocation Center

Law Center Addition

Undergraduate Residences

Biology Laboratories

Chemistry Research Center

Notre Dame, Residence Hall Alterations, Mankato, Minnesota

Normandale Community College, Bloomington, Minnesota

St. Joseph's, St. Paul, Minnesota

Novitiate Alterations

Administration Building





River Falls Elementary School, River Falls, Wisconsin  
North Iowa Area Community College, Mason City, Iowa  
Tech. Science Labs and Classrooms Unit 1  
Tech. Science Labs and Classrooms Units 4 and 5  
Big Fork High School, Additions and Alterations, Big Fork,  
Minnesota  
South Middlesex Regional Vocational Technical School,  
Framingham, Massachusetts  
Bethel College, Academic Complex, Arden Hills, Minnesota  
U.S. Naval Academy, Sailing Center, Annapolis, Maryland  
Dakota County Courthouse, Hastings, Minnesota  
Providence Civic Center, Providence, Rhode Island  
Lexington Center, Civic Center, Lexington Kentucky  
College of St. Teresa, Lourdes Hall, Food Service Renovation,  
Winona, Minnesota  
Huntington Civic Center, Huntington, West Virginia





## JOHN RAAP

### Responsibility:

Director of Marketing, Civic/Commercial/Sports Facilities,  
Ellerbe Associates, Inc.  
Development Consultant and member of the Board,  
Appletree Enterprises, Inc.

### Academic and Professional Background:

Liberal Arts, Princeton University  
Business Administration, Michigan State University  
LLB Studies in Law, Indiana University  
Registered Lobbyist, Minnesota State Legislature  
Board of Directors, Minnesota Apartment Association  
Building Owners and Management Association  
Association of Sales and Marketing Executives  
Minneapolis Chamber of Commerce  
St. Paul Chamber of Commerce  
Speaker and Panelist, Real Estate Development Seminars

### Professional Experience:

Development Coordinator, Knutson Companies, Inc.,  
Minneapolis, Minnesota  
Urban Redevelopment Consultant, City of Minneapolis,  
Minnesota  
Manager, IBM Office Building and Science Center  
Industrial Park, Minneapolis, Minnesota

### Project Experience:

Lexington Center Development, Lexington, Kentucky  
St. Luke's Medical Office Building and Parking Ramp,  
Cleveland, Ohio  
Appletree Square Development, Bloomington, Minnesota  
Providence Civic Center, Providence, Rhode Island  
St. Lukes Medical Office Building and Parking Ramp,  
St. Paul, Minnesota  
H.B. Fuller Company Corporate Headquarters Expansion,  
St. Paul, Minnesota  
N.P. Dodge Sports and Recreation Center, Omaha, Nebraska  
NIACC Student Residences, Mason City, Iowa  
Fairfax County Sports and Recreation Center, Fairfax,  
Virginia  
Riverfront Center Development, Flint, Michigan  
One Michigan Avenue Development, Lansing, Michigan  
International Agri Centre Development, Orlando, Florida  
Volusia County Convention Center, Daytona Beach, Florida  
Town Center Development, Lynchburg, Virginia  
Project One Convention Center and Hotel, Richmond, Virginia  
Fort Myers Convention Center and Hotel, Fort Myers, Florida  
Memphis Convention Center and Hotel, Chattanooga, Tennessee  
Chattanooga Convention Center and Hotel, Chattanooga,  
Tennessee  
Huntington Civic Center and Hotel, Huntington, West Virginia  
Orlando Civic and Convention Center, Orlando, Florida  
Anchorage Civic and Convention Center, Anchorage, Alaska  
Marshall University Athletic Center, Huntington, West Virginia  
Radisson Convention Hotel, Fort Wayne, Indiana





## Curriculum Vitae

LAURENCE SHERMAN

Director, IBI Group  
Associate, Beinhaker/Irwin Associates

### EDUCATION

Master of Architecture, University of Pennsylvania 1964  
Master of City Planning, University of Pennsylvania 1963  
Bachelor of Architectural Engineering, Washington State University 1956

### PROFESSIONAL QUALIFICATIONS AND MEMBERSHIPS

Canadian Institute of Planners  
Ontario Association of Architects  
Architect registered in Pennsylvania, California, Michigan  
Colorado, Washington  
Certified, (U.S.) National Council of Architectural Registration Boards

### SUMMARY OF PLANNING AND DESIGN CAREER

From 1959 to 1968 he practiced as an urban planner and architect in Philadelphia as well as serving as design critic at Drexel Institute and the University of Pennsylvania.

Also from 1953 to 1968 he directed a number of urban redevelopment projects for the Philadelphia City Planning Commission including physical planning and design for the Federal Model Cities Program.

In 1969 he became Associate Professor of Urban Design at the University of Montreal.

In 1970 he joined a national consulting firm in Canada and became a partner of that firm in 1974 carrying out projects in the field of facilities programming and urban design throughout the country.

He became one of the founding Directors of IBI in Canada in November 1974 and of IBI in the U.S. in June 1978. He currently directs planning and design projects including housing, hospitals, universities and multi-use transportation terminals.





## Curriculum Vitae

JOSEF GER

Associate, IBI Group

### EDUCATION

Bachelor of Applied Arts, Ryerson Polytechnical Institute (1977).

### PROFESSIONAL QUALIFICATIONS AND MEMBERSHIPS

Canadian Association of Geographers

National Association of Geographers

### SUMMARY OF PROFESSIONAL CAREER

Since graduating in 1977, Mr. Ger has been practicing as a consultant to the real estate industry. Prior to joining the IBI Group, Mr. Ger undertook a number of private engagements, on behalf of shopping centre developers requiring market studies and financial implication analyses.

In the latter part of 1977, Mr. Ger joined the IBI Group as a real estate consultant and presently continues in the employment of the IBI Group as an Associate practicing consulting in the real estate development area.

Mr. Ger has a broad experience in recreational, housing and commercial market analyses, site selection and real estate financial studies. Mr. Ger has carried out numerous studies of market related to shopping centres including shopping centre potential for the City of Burlington, Town of Bowmanville, strip retail in the City of Toronto, shopping centre demand in the Town of Wasaga Beach. In addition, Mr. Ger has carried out market and financial studies associated with office space including retail components in the central area of the City of Toronto, Scarborough Town Centre, Town of Newcastle, and the City of Whitby. He has recently led key market demand and financial feasibility analyses for the Hamilton arena/trade centre project.

Mr. Ger has provided expert testimony related to the market analyses carried out in establishing demand for shopping centres in the City of Burlington, in the Town of Wasaga Beach, and in the Town of Newcastle. In addition, in the above described examples of professional experience, Mr. Ger acted as study manager in the majority of the cases described.





## Curriculum Vitae

RUSSELL GWILLIAM

Director, IBI Group

### EDUCATION

Bachelor of Science (Hons.), University of London, 1952

Post Graduate Diploma, Town Planning, Victoria University, Manchester, 1961

Heywood Silver Medal for Town Planning

### PROFESSIONAL QUALIFICATIONS AND MEMBERSHIPS

Canadian Institute of Planners

Royal Town Planning Institute

Royal Institution of Chartered Surveyors, Planning and Development Division

### SUMMARY OF PROFESSIONAL CAREER

From 1953 to 1959 he practiced as a land administrator, cadastral and engineering surveyor, and registrar of title as a member of Her Majesty's Overseas Civil Service in Sarawak. During this period he also served as State Surveyor, Brunei.

In 1960 he founded the Planning Branch in Sarawak and from 1963 to 1969 was Chief Planning Officer. As such he made major contributions to the State's 5 Year Development Plans, was responsible for urban planning, preparation and implementation of urban development programs, and rural land development schemes.

In 1969 he joined a major Canadian consulting firm, and in 1973 became a Partner, undertaking major projects in the fields of urban, regional and resource planning and air transportation throughout Canada.

He was one of the founding Directors of IBI Group in Canada, responsible for the Urban and Regional Planning Practice in Eastern Canada. He currently directs projects in the areas of planning, economic and industrial development, energy, environmental impact, market research and financial analysis.

Mr. Gwilliam has a broad experience of market analyses, having directed studies for both the public and private sector related to retail, commercial office, residential and institutional needs. Recent analyses include those undertaken in the Town of Newcastle with respect to retail requirements of Bowmanville and Courtice; analyses of the demand for additional retail space at Dixie Plaza; retail market demand for the City of Welland; and the market study of retail requirements of the Town of Wasaga Beach; financial and feasibility analysis for the proposed Hamilton arena/trade centre and stadium. His analysis of two alternative locations for the development of Pickering Town Centre resulted in a recommendation which subsequently remained unchallenged by the other proponent.





## Curriculum Vitae

PHILIP HOWARD BEINHAKER

Managing Director, IBI Group  
Managing Partner, Beinhaker/Irwin Associates

### EDUCATION

Bachelor of Architecture, McGill University, 1964  
Urban Planning Studies in France and Britain

### PROFESSIONAL QUALIFICATIONS AND MEMBERSHIPS

Royal Architectural Institute of Canada  
Ontario Association of Architects  
Order of Architects of Quebec

### SUMMARY OF PLANNING AND DESIGN CAREER

From 1964 to 1966 he practiced architecture with firms in France and Britain including project architect for Leicester University Arts and Social Science complex.

Between 1967 and 1970 he served as project manager for research, planning and preliminary design of the Montreal International Airport developments.

From 1970 to 1974 he was a senior partner responsible for the national planning practice of a major consulting firm. His work included a wide range of market research, policy and physical planning assignments for major private development companies and public agencies.

In 1974 he became a founding Managing Director of the IBI Group and also became Managing Partner of Beinhaker/Irwin Associates and in 1978 became a Managing Director of IBI Group, U.S.

He continues today with overall responsibility for the practice of the firm in land development, housing, commercial, institutional and transportation facilities, with major involvement in other areas of the firm's work in transport policy, energy in buildings and land engineering. His special areas of consulting and strategic studies: research and policy advice on land management/development, housing and transport; planning: urban/regional planning, resource development and environmental assessments; design: urban design and architectural services for housing, transportation commercial and institutional facilities; project management: management of major physical developments.





## Curriculum Vitae

NEAL A. IRWIN

Managing Director, IBI Group  
Partner, Beinhaker/Irwin Associates

## EDUCATION

Bachelor of Science (Engineering Physics), University of Toronto, 1955  
Studies in Economics and Political Science, University of Toronto, 1950-51  
Special Lecturer in Urban Transportation, University of Toronto, 1966-70

## PROFESSIONAL QUALIFICATIONS AND MEMBERSHIPS

Association of Professional Engineers of Ontario, British Columbia,  
Alberta, Saskatchewan: Registered Consulting Engineer  
Engineering Institute of Canada; Canadian Society of Civil Engineers  
Institute of Transportation Engineers  
Canadian Operational Research Society  
Institute of Management Consultants of Ontario  
Roads and Transportation Association of Canada  
Chairman, Planning Committee, 1972-75  
Vice Chairman/Chairman, Technical Council, 1975-79  
Canadian Transportation Research Forum: Vice President and Board Member

## SUMMARY OF PROFESSIONAL CAREER

From 1955 to 1959 he practiced as a design engineer in the field of nuclear energy, initially for two years in the United Kingdom with English Electric Company and subsequently with Canadair Limited and Atomic Energy of Canada Limited in Canada.

In 1960 he joined KCS Limited, a firm of management and technical consultants owned by Dr. Josef Kates. He played a leading role in developing and applying computerized traffic forecasting/simulation models and, in 1961, was appointed Vice President of a subsidiary, Traffic Research Corporation, and moved to New York City to set up and direct an American subsidiary of this name. During the subsequent five years, TRC grew from one person to 60 persons in the United States, operating out of four offices across the country. He returned to Canada in 1966 as Executive Vice President at the parent company. In 1967, KCS/TRC merged with a major management consulting firm and Mr. Irwin directed the Transportation, Management Sciences, Planning and Economics Group during the period 1967 to 1974.

In November 1974 he became a founding Managing Director of the IBI Group and a founding Partner of Beinhaker/Irwin Associates. In this role he bears overall responsibility for IBI's practice in Transportation/Communications, Energy, and Computer/Management Sciences.





## APPENDIX

## RESUME OF ELLERBE ASSOCIATES LTD.





STANDARD FORM (SF)

254

Architect-Engineer and Related Services Questionnaire

1. Firm Name/Business Address:  
Ellerbe Associates, Inc.  
One Appletree Square  
Bloomington, Minnesota 55420  
612/853-2000 Telex: 290-814

2. Year Present Firm Established:  
1909

3. Date Prepared:  
31 July, 1981

1a. Submittal is for ☒ Parent Company ☐ Branch Office

4. Type of Ownership:  
4a. Minority Owned ☐ yes ☒ no

5. Name of Parent Company, if any:

5a. Former Firm Name(s), if any, and Year(s) Established:

Ellerbe, Inc.

Ellerbe Architects/Engineers/Planners

6. Names of not more than Two Principals to Contact: Title/Telephone

- 1) Dennis F. Walsh, President 612/853-2351
- 2) Malcolm L. Nietz, Senior Vice President 612/853-2146

7. Present Offices: City/State/Telephone/No. Personnel Each Office

|                                                           |       |              |     |
|-----------------------------------------------------------|-------|--------------|-----|
| One Appletree Square, Bloomington, Minnesota              | 55420 | 612/853-2000 | 712 |
| 2550 "M" Street N.W., Washington, D.C.                    | 20037 | 202/828-2500 | 580 |
| Suite 926, American National Bank Building, Austin, Texas | 78701 | 512/473-2082 | 71  |
| One Canal Street, New Orleans, Louisiana                  | 70130 | 504/522-2458 | 5   |
| Suite 3025, One Union Square, Seattle, Washington         | 98101 | 206/625-0666 | 28  |
| 601 College Road, Fairbanks, Alaska                       | 99701 | 907/452-1241 | 2   |
|                                                           |       |              | 26  |

8. Personnel by Discipline:

|                            |                         |                             |                              |
|----------------------------|-------------------------|-----------------------------|------------------------------|
| 33 Administrative          | 18 Electrical Engineers | 0 Oceanographers            | 9 Industrial Engineers       |
| 143 Architects             | 11 Estimators           | 14 Planners: Urban/Regional | 7 Computer Graphic Tech.     |
| 1 Chemical Engineers       | 0 Geologists            | 2 Sanitary Engineers        | 14 Information Systems Tech. |
| 5 Civil Engineers          | 0 Hydrologists          | 0 Soils Engineers           | 83 Clerical                  |
| 48 Construction Inspectors | 15 Interior Designers   | 6 Specification Writers     | 4 Graphic Designers          |
| 214 Draftsmen              | 2 Landscape Architects  | 24 Structural Engineers     | 13 Property Mgmt/Development |
| 0 Ecologists               | 45 Mechanical Engineers | 0 Surveyors                 |                              |
| 0 Economists               | 0 Mining Engineers      | 1 Transportation Engineers  | 712 TOTAL                    |

9. Summary of Professional Services Fees

Received: (insert index number)

Direct Federal contract work, including overseas  
All other domestic work  
All other foreign work \*

Last 5 Years (most recent year first)

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| 19 80 | 19 79 | 19 78 | 19 77 | 19 76 |
| 4     | 5     | 3     | 4     | 6     |
| 8     | 8     | 8     | 8     | 8     |
| 1     | 1     | 1     | 5     | 5     |

Ranges of Professional Services Fees INDEX

- 1. Less than \$100,000
- 2. \$100,000 to \$250,000
- 3. \$250,000 to \$500,000
- 4. \$500,000 to \$1 million
- 5. \$1 million to \$2 million
- 6. \$2 million to \$5 million
- 7. \$5 million to \$10 million
- 8. \$10 million or greater

\*Firms interested in foreign work, but without such experience, check here: ☐





# 10. Profile of Firm's Project Experience, Last 5 Years

| Profile Code | Number of Projects | Total Gross Fees (in thousands) | Profile Code | Number of Projects | Total Gross Fees (in thousands) | Profile Code | Number of Projects | Total Gross Fees (in thousands) |
|--------------|--------------------|---------------------------------|--------------|--------------------|---------------------------------|--------------|--------------------|---------------------------------|
| 1) 006       | 5                  | 250                             | 11) 035      | 12                 | 5,600                           | 21) 072      | 15                 | 3,000                           |
| 2) 007       | 18                 | 2,800                           | 12) 039      | 16                 | 1,600                           | 22) 079      | 104                | 3,050                           |
| 3) 010       | 3                  | 1,200                           | 13) 044      | 101                | 4,060                           | 23) 083      | 6                  | 510                             |
| 4) 011       | 5                  | 125                             | 14) 048      | 140                | 55,000                          | 24) 084      | 6                  | 800                             |
| 5) 017       | 9                  | 1,070                           | 15) 049      | 4                  | 1,800                           | 25) 087      | 3                  | 2,300                           |
| 6) 019       | 9                  | 4,000                           | 16) 052      | 20                 | 5,000                           | 26) 095      | 5                  | 50                              |
| 7) 021       | 12                 | Not available                   | 17) 054      | 4                  | 175                             | 27) 096      | 11                 | 750                             |
| 8) 027       | 8                  | 415                             | 18) 055      | 100                | 650                             | 28) 098      | 5                  | 250                             |
| 9) 029       | 40                 | 15,000                          | 19) 057      | 4                  | 750                             | 29) 101      | 230                | 12,000                          |
| 10) 032      | 17                 | 250                             | 20) 058      | 13                 | 6,120                           | 30) 113      | 9                  | 1,500                           |

# 11. Project Examples, Last 5 Years

| Profile Code | "P", "C", "JV", or "E" | Project Name and Location                                                                                           | Owner Name and Address                                                         | Cost of Work (in thousands) | Completion Date (Actual or Estimated) |
|--------------|------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------|---------------------------------------|
| 006          | P                      | 1 Yakutat Hangar Addition & Remodeling Naval Station Adak, Andreanof Island Aleutian Islands, Alaska                | US Naval Facilities Engineering Command Western Division San Bruno, California | 1,200                       | 1980                                  |
| 007          | P                      | 2 Fort Wainwright Office Complex Fairbanks, Alaska                                                                  | US Department of Interior Bureau of Land Management Denver, Colorado           | 2,600                       | 1978                                  |
| 010          | P                      | 3 Bachelor Officers Quarters Modifications Ft. Greeley, Alaska                                                      | US Army Corps of Engineers Alaska District Anchorage, Alaska                   | 800                         | 1979                                  |
| 011          | P                      | 4 Bridges 34011 & 34012 T.H. 71 & T.H. 23 over BNRR Willmar, Minnesota                                              | Minnesota Department of Transportation St. Paul, Minnesota                     | 1,000                       | 1980                                  |
| 017          | P                      | 5 Target Stores, Prototype Development and Projects (5) Austin, Texas (2) Rapid City Iowa, Grand Junction, Colorado | Target Stores Division of Dayton Hudson Corporation Minneapolis, Minnesota     | N/A                         | 1978                                  |
| 019          | P                      | 6 Corporate Computer Center Peoria, Illinois                                                                        | Caterpillar Tractor Company Peoria, Illinois                                   | N/A                         | 1978                                  |
| 021 & 048    | P<br>Energy Savings    | 7 United Hospitals & Children's Hospital St. Paul, Minnesota                                                        | United Hospitals & Children's Hospital St. Paul, Minnesota                     | 40,000                      | 1979                                  |





|              |                         |                                                                                                                                             |                                                                                  |         |      |
|--------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------|------|
| 027          |                         | Building No. 265<br>Maplewood, Minnesota                                                                                                    | St. Paul, Minnesota                                                              | 890     | 1977 |
| 029          | P<br>Energy<br>Savings  | 9 School of Business Administration<br>and Public & Environmental Affairs<br>Indiana University, Bloomington, Indiana                       | Indiana University Board of Regents<br>Bloomington, Indiana                      | 14,500  | 1982 |
| 032          | Energy<br>Savings       | 10 Solid Waste Resource and Energy<br>Recovery Analysis<br>Hennepin County, Minnesota                                                       | Hennepin County<br>Board of Commissioners<br>Minneapolis, Minnesota              | N/A     | 1978 |
| 035          | P                       | 11 Hartford Civic Center<br>(Redesign/Build of 17,500 seat arena/<br>exhibit hall structural collapse of<br>original design by another A/E) | City of Hartford, Connecticut                                                    | 25,000  | 1981 |
| 039          | P                       | 12 256,000 SF/1,000 Bus Overhaul Facility<br>St. Paul, Minnesota                                                                            | Metropolitan Transit Commission<br>St. Paul, Minnesota                           | 12,000  | 1981 |
| 044          | JV<br>Energy<br>Savings | 13 Uniformed Services Health Sciences<br>University and National Naval Medical<br>Center, Bethesda, Maryland                                | US Naval Facilities Engineering Command<br>Chesapeake Division<br>Washington, DC | 218,000 | 1981 |
| 048          | P                       | 14 W.A. Foote Hospital<br>422 Bed new replacement facility<br>(Formerly 2 sept. hosp.-remod. included)<br>Jackson, Michigan                 | W.A. Foote Memorial Hospital<br>Jackson, Michigan                                | 31,500  | 1983 |
| 049          | P                       | 15 Lexington Hyatt Regency (377 Rooms)<br>Lexington, Kentucky                                                                               | Hunt/Landmark, LTD<br>Lexington, Kentucky                                        | 11,000  | 1977 |
| 049          | JV                      | 16 SPD Manufacturing Facility<br>Brooklyn, New York                                                                                         | IBM Corporation<br>Special Products Division                                     | 8,000   | 1979 |
| 054          | P                       | 17 Chicago & North Western Railroad<br>Maintenance Wastewater Treatment Facility<br>South Morrill, Nebraska                                 | Chicago & North Western Transportation<br>Company<br>Chicago, Illinois           | 1,500   | 1981 |
| 055 &<br>074 | P                       | 18 Naval Underwater Weapons Engineering<br>Systems (NUWES) Assembly Plants<br>Cleveland, Ohio & Keyport WA                                  | Honeywell, Minneapolis, Minnesota<br>and TRW, Cleveland, Ohio                    | N/A     | 1979 |
| 057          | P                       | 19 Ramsey County Municipal Courthouse<br>Remodeling<br>St. Paul, Minnesota                                                                  | Ramsey County<br>St. Paul, Minnesota                                             | 670     | 1980 |









